/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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Batch:TA3

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/\*1. Input the processes along with BUrst time

2.Find Waiting time for all the processes

3.At first process wt[0]=0

4. Find the WT for all the processes

wt[i]=bt[i-1]+wt[i-1]

5. Find Turnaround time= WT+BT for all process

6.Find average for TAT WT \*/

import java.util.\*;

public class Main

{

public static void main(String[] args) {

Scanner sc= new Scanner(System.in);

System.out.print("Enter the number of processes :-");

int n=sc.nextInt(); //Total processes

int pid[]= new int[n]; //Process ids

int ar[]= new int[n];

int bt[]= new int[n];

int ct[]= new int[n];

int ta[]= new int[n];

int wt[]= new int[n];

int temp;

float avgwt=0,avgta=0;

for(int i=0;i<n;i++)

{

System.out.print("Enter the process "+(i+1)+"arrival time : ");

ar[i]=sc.nextInt();

System.out.print("Enter the process "+(i+1)+"Burst time: ");

bt[i]=sc.nextInt();

pid[i]=i+1;

}

//sort the process according to Arrival Time

for(int i=0;i<n;i++)

{

for(int j=0;j<n-(i+1);j++)

{

if(ar[j]>ar[j+1])

{

temp=ar[j];

ar[j]=ar[j+1];

ar[j+1]=temp;

temp=bt[j];

bt[j]=bt[j+1];

bt[j+1]=temp;

temp=pid[j];

pid[j]=pid[j+1];

pid[j+1]=temp;

}

}

}

//find the completion time

for(int i=0;i<n;i++)

{

if(i==0)

ct[i]=ar[i]+bt[i];

else

{

if(ar[i]>ct[i-1])

{

ct[i]=ar[i]+bt[i];

}

else

ct[i]=ct[i-1]+bt[i];

}

ta[i]=ct[i]-ar[i];

wt[i]=ta[i]-bt[i];

avgwt=avgwt+wt[i];

avgta=avgta+ta[i];

}

System.out.println("\nPID AT BT CT TAT WT ");

for (int i=0; i<n;i++ ) {

System.out.println(pid[i]+"\t"+ar[i]+"\t"+bt[i]+"\t"+ct[i]+"\t"+ta[i]+"\t"+wt[i]);

}

sc.close();

}

}

**OUTPUT**

Enter the number of processes :2

Enter the process 1arrival time : 3

Enter the process 1Burst time: 4

Enter the process 2arrival time : 2

Enter the process 2Burst time: 4

PID AT BT CT TAT WT

2 2 4 6 4 0

1 3 4 10 7 3